

IN THE CLAIMS:

- 1 1. (CURRENTLY AMENDED) A load balancing system for distributing tasks to a processor resource resources of a processor pool, the system comprising:
 - 3 a memory with a region organized into at least one region-of-memory block blocks, each memory block configured to store a session;
 - 5 an interface for coupling the memory to the processor resource, whereby the processor resource accesses the at least one memory block blocks to update information associated with the session sessions;
 - 8 an access monitor coupled to the interface, wherein the access monitor recognizes and tracks memory cycles associated with the at least one memory block blocks during a specified period of time and collects statistics associated with the session-sessions; and
 - 11 a central resource coupled to the access monitor, the central resource arranged to receive the statistics from the access monitor, and, in response thereto, to assign tasks to the processor resource-resources.
- 1 2. (ORIGINAL) The load balancing system as defined in claim 1 further comprising logic for recognizing a new session and designating a memory block for that session.
- 1 3. (CURRENTLY AMENDED) The load balancing system as defined in claim 1 wherein the access monitor comprises:
 - 3 memory address logic that recognizes address fields defining the at least one memory block-blocks;

5 memory control logic that recognizes memory cycles being executed on the at
6 least one memory block-blocks; and

7 a session table with activity information entries associated with each session.

1 4. (ORIGINAL) The load balancing system as defined in claim 1 wherein the access
2 monitor is embodied as an application specific integrated circuit.

1 5. (ORIGINAL) The load balancing system as defined in claim 3 wherein, when the
2 specified period of time elapses, the session table is cleared.

1 6. (CURRENTLY AMENDED) A load balancing system for distributing tasks to a
2 processor resource resources of a processor pool, the system comprising:

3 means for storing information organized-into at least one block region of blocks,
4 each memory-block configured to store a session;

5 means for coupling the at least one block blocks to the processor resource re-
6 sources, whereby the processor resource resources-access the at least one memory block
7 blocks to update information associated with the session sessions;

8 means for monitoring information transfers on the interface, wherein the means
9 for monitoring recognizes and tracks memory cycles associated with the at least one
10 memory block blocks-during a specified period of time and collects statistics associated
11 with the session sessions; and

12 means for assigning tasks coupled to the means for monitoring to receive the sta-
13 tistics therefrom, and in response thereto, to assign tasks to the processor resource-re-
14 sources.

1 7. (ORIGINAL) The load balancing system as defined in claim 6 further comprising
2 means for recognizing a new session and designating a memory block for that session.

1 8. (CURRENTLY AMENDED) The load balancing system as defined in claim 6
2 wherein the means for monitoring information further comprises:

3 means for recognizing memory address fields defining the at least one memory
4 block blocks;

5 means for recognizing memory cycles being executed on the at least one memory
6 block blocks; and

7 means for storing activity information entries associated with each session.

1 9. (ORIGINAL) The load balancing system as defined in claim 8 wherein, when the
2 specified period of time elapses, the session table is cleared.

1 10. (CURRENTLY AMENDED) A load balancing method for distributing tasks to a
2 processor resource resources of a processor pool, the method comprising the steps of:

3 storing information into memory with a region organized into at least one region
4 of memory block blocks, each memory block configured to store a session;

5 coupling the memory to the processor resource, whereby the processor resource
6 accesses the at least one memory block blocks to update information associated with the
7 session sessions;

8 monitoring information transfers between the at least one memory block blocks
9 and the processor-resource resources, wherein the step of monitoring further comprises
10 recognizing and tracking memory cycles associated with the at least one memory block
11 blocks during a specified period of time and collecting statistics associated with the ses-
12 sion; and

13 receiving the statistics, and, in response thereto, assigning tasks to the processor
14 resource resources.

1 11. (ORIGINAL) The load balancing method as defined in claim 10 further comprising
2 the steps of recognizing a new session and designating a memory block for that session.

1 12. (CURRENTLY AMENDED) The load balancing method as defined in claim 10
2 wherein the step of monitoring information transfers comprises the steps of:

3 recognizing memory address fields defining the at least one memory block
4 blocks;

5 recognizing memory cycles being executed on the at least one memory block
6 blocks; and

7 storing activity information entries associated with each session in a session table.

1 13. (CURRENTLY AMENDED) The load balancing method as defined in claim ~~10~~12
2 wherein, when the time period has elapsed, the session table is cleared.

1 14. (CURRENTLY AMENDED) Computer readable memory comprising computer ex-
2 ecutable program instructions for load balancing distribution of tasks to a processor re-
3 source resources of a processor pool, the instructions, when executed, causes:

4 storing information into memory memory with a region organized into at least one
5 region of memory block blocks, each memory block configured to store a session,

6 coupling the memory to the processor resource, whereby the processor resource
7 accesses the at least one memory block blocks to update information associated with the
8 session sessions,

9 monitoring information transfers between the at least one memory block blocks
10 and the processor resource, wherein the monitoring recognizes and tracks memory asso-
11 ciated with the the at least one memory block blocks during a specified period of time
12 and collects statistics associated with the session sessions; and

13 receiving the statistics, and, in response thereto, assigning tasks to the processor
14 resource resources.

1 15. (ORIGINAL) Computer readable memory as defined in claim 14, the computer pro-
2 gram when executed also causes recognizing of a new session and designating a memory
3 block for that session.

1 16. (CURRENTLY AMENDED) Computer readable memory as defined in claim 14,
2 the computer program when executed also causes:

3 recognizing memory address fields defining the at least one memory block
4 blocks;

5 recognizing memory cycles being executed on the at least one memory block
6 blocks; and

7 storing activity information entries associated with each session in a session table.

1 17. (CURRENTLY AMENDED) Computer readable memory as defined in claim 14_16,
2 the computer program when executed also causes, when the time period has elapsed, the
3 session table to be cleared.

1 18. (NEW) A load balancing system for distributing tasks to a plurality of processors of
2 a processor pool, the system comprising:

3 a plurality of memories, each memory associated with a processor of the plurality
4 of processors, each memory organized into a plurality of memory blocks, each memory
5 block configured to store a session;

6 a plurality of interfaces, each interface coupling one of the memories to one of the
7 processors, whereby the processors accesses memory blocks over the interfaces to update
8 information associated with the sessions;

9 an access monitor coupled to the interfaces, wherein the access monitor recog-
10 nizes accesses to the memory blocks to thereby collects statistics associated with the ses-
11 sions; and

12 a central resource coupled to the access monitor, the central resource arranged to
13 receive the statistics from the access monitor, and, in response thereto, to assign tasks to
14 the processors.

1 19. (NEW) A load balancing method for distributing tasks a plurality of processors of a
2 processor pool, the system comprising:

3 storing information related to sessions into a plurality of memories, each memory
4 arranged into a plurality of memory blocks, each memory block associated with a ses-
5 sion;

6 coupling the memories to the processors with a plurality of interfaces, each inter-
7 face interconnecting a processor to a memory associated with the processor;

8 monitoring information transferred over the plurality of interfaces, wherein the
9 step of monitoring further includes recognizing memory accesses associated with mem-
10 ory blocks to thereby collect statistics associated with the sessions; and

11 receiving the statistics, and, in response thereto, assigning tasks to the processors.

1 20. (NEW) A load balancing method for distributing tasks a plurality of processors of a
2 processor pool, the system comprising:

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4 means for storing information related to sessions into a plurality of blocks, each
5 block associated with a session;

- 6 means for coupling the blocks to the processors, each means for coupling inter-
- 7 connecting a processor to a one or more blocks associated with the processor;

- 8 means for monitoring information transferred over the means for coupling, the
- 9 means for monitoring recognizing block accesses associated with blocks to thereby col-
- 10 lect statistics associated with the sessions; and

- 11 means for receiving the statistics, and, in response thereto, assigning tasks to the
- 12 processors.